



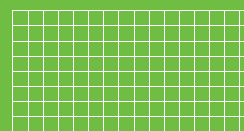
**HealthConnect**  
HEALTH INFORMATION WHEN YOU NEED IT

# HealthConnect Implementation Strategy

Version 2.1 6 July 2005



HealthConnect - the Australian Government  
and State and Territory governments working  
in partnership with health care providers,  
industry and consumers



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ISBN: 0 642 82704 4

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Publication approval number: 3670 (JN9045)

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# Table of Contents

<b>1</b>	<b>Purpose of document .....</b>	<b>3</b>
1.1	Purpose.....	3
1.2	Audience .....	3
<b>2</b>	<b>Vision.....</b>	<b>5</b>
2.1	What is the HealthConnect Strategy? .....	5
2.2	Why do we need the HealthConnect Strategy?.....	5
2.3	What does the HealthConnect Strategy support?.....	5
2.4	How will the HealthConnect Strategy be implemented?.....	6
2.5	What will the HealthConnect Strategy deliver?.....	8
2.6	What will the HealthConnect Strategy achieve? .....	9
<b>3</b>	<b>Guiding principles to successful delivery of the HealthConnect Strategy .....</b>	<b>11</b>
3.1	Improved safety and quality in health care .....	11
3.2	Stakeholder engagement .....	12
3.3	Partnership between the Australian and State and Territory Governments .....	14
3.4	National consistency and interoperability.....	16
3.5	Continuous improvement of HealthConnect products and services .....	17
3.6	Investment.....	18
3.7	Evaluation .....	19

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# 1 Purpose of document

## 1.1 Purpose

This document sets out the revised implementation strategy for *HealthConnect* from March 2005. The strategy was revised in the context of inputs from:

- consultations on the *HealthConnect* Business Architecture;
- lessons learned from the *MediConnect* Field Test and the *HealthConnect* Trials;
- discussion by the *HealthConnect* Board; and
- stakeholder feedback on *HealthConnect* documentation.

The strategy will be progressively developed within the governance arrangements described at Section 3.17, and key stakeholders will also be engaged during this process. The latest version will be maintained on the *HealthConnect* web site at [www.healthconnect.gov.au](http://www.healthconnect.gov.au).

The *HealthConnect* Implementation Strategy will be used:

- by Australian, State and Territory Governments to drive the implementation in consultation with stakeholders;
- by the *HealthConnect* National Implementation Steering Committee as the ‘roadmap’ to guide decision making and monitor progress;
- by staff in the Australian, State and Territory Government Departments of Health to align regional initiatives to national interoperability standards;
- as the foundation for establishing agreement amongst relevant parties on implementation principles and plans; and
- to guide the development of an implementation compliance framework.

This strategy sits within the project management methodology endorsed by the *HealthConnect* Board in September 2004. This document sets out the key driving principles and the high level outcomes. Detailed milestones for the project will be articulated in the *HealthConnect* business and execution plans.

## 1.2 Audience

The audience for this document is:

- Ministers for Health;

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- Chief Executives of Australian, State and Territory Government Departments of Health;
  - HealthConnect National Implementation Steering Committee;
  - Australian, State and Territory Government central agencies; and
  - Stakeholders.

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## 2 Vision

### 2.1 What is the *HealthConnect* Strategy?

*HealthConnect* is an overarching national change management strategy to improve safety and quality in health care by establishing and maintaining a range of standardised electronic health information products and services for health care providers and consumers.

### 2.2 Why do we need the *HealthConnect* Strategy?

The risks and frustrations of current health information management practices are well recognised by health consumers, providers and governments. They include:

- the occurrence of errors, adverse events (including deaths), and inappropriate treatments because of incomplete information at the point of decision-making;
- consumers being excluded from full participation in decisions about their own health care and not having access to their own health information;
- providers and consumers having to waste time chasing up information;
- individuals falling through ‘cracks’ in the system due to information not being passed on; and
- tests being unnecessarily undertaken when previous results (or other relevant information) are not available, incurring additional inconvenience, cost and health risks.

### 2.3 What does the *HealthConnect* Strategy support?

*HealthConnect* will be an enabler of reform in health care in Australia, supporting new approaches to health care through improved availability of information.

The *HealthConnect* Strategy will provide a platform for further initiatives in health care, supporting:

- new methods of providing health care (consumer-centred coordinated care pathways, health call centres);

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- consumers becoming more involved in decisions about their health (consumer autonomy);
  - multilateral health information flows (supporting multidisciplinary care teams);
  - electronic decision support (expert systems);
  - continuing professional education (e-learning);
  - new models of health care financing (online billing or claiming); and
  - better health service planning (population health analysis).

Existing and planned electronic health record projects in all States and Territories that agree to participate in the strategy will be managed within a compliance pathway to interoperability.

## **2.4 How will the HealthConnect Strategy be implemented?**

National implementation of the HealthConnect Strategy has now commenced, based on:

- applying the lessons learned from the MediConnect Field Test and HealthConnect trials;
- extensive feedback from a wide range of stakeholders (including all State and Territory Governments);
- an external review of this program commissioned by the Australian Government in December 2004;
- a partnership approach for implementation accountability between Australian, State and Territory Governments;
- use of nationally agreed standards by the information management and information and communications technology (IM&ICT) industry to develop commercially available systems for the recording and communication of clinical information;
- development of shared consumer electronic health records and health plans as a product of electronic clinical information systems and workflows; and
- consumer ability to manage the privacy of their health information and participation in associated services.

The HealthConnect Strategy is a partnership for change incorporating a variety of Australian, State and Territory initiatives and policies that have matured during the project's research and development stages. This strategy will continue to develop, consistent with the vision articulated below, as projects

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progress on a regional basis towards implementation within a national interoperability framework.

The HealthConnect Strategy will leverage existing projects and infrastructure to achieve short-term results and drive longer term outcomes. This approach will avoid long delivery timeframes caused by building ‘from scratch’ in isolation from existing initiatives.

Implementation will occur in logical phases, with sufficient flexibility to accommodate jurisdictional differences in progress to HealthConnect compliance.

- Phase One: *Australian, State and Territory Government agreements*  
Establish agreements with each participating State and Territory Government to the HealthConnect Implementation Strategy.
- Phase Two: *National and local preparation*  
Establish initial capability to manage progress to HealthConnect compliance, including resources, governance, stakeholder consultation, identification of existing and planned services, national infrastructure, standards and preparation of compliance pathway plans.
- Phase Three: *Initial compliance assessment*  
Assess compliance of initial local services with National e-Health Transition Authority (NEHTA) and other relevant standards and develop migration and operating requirements, plans and local stakeholder engagement strategies.
- Phase Four: *Initial compliance development*  
Migrate and operate local services towards full compliance with NEHTA and other relevant standards within agreed governance processes and timeframes.
- Phase Five: *Full compliance assessment and development*  
Identify and plan compliance migration of additional or new services to contribute to achievement of national HealthConnect coverage and interoperability.
- Result: HealthConnect services will become available on a regional basis within a national interoperability framework sooner than previously anticipated.



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## **2.5 What will the HealthConnect Strategy deliver?**

### **2.5.1 *Enhanced clinical communication through standardised electronic clinical messages***

Electronic clinical communication will enable providers and consumers to better manage a consumer's care by providing a means to securely communicate clinical information in a way that is based on national standards and protects a consumer's right to privacy and confidentiality of their clinical information.

Standards-based referrals and reports will result in quality, safety and efficiency gains within the health system.

Communication across the hospital/community interface will assist the smooth transition of a consumer between care environments and reduce unnecessary re-admissions to hospital.

### **2.5.2 *Enhanced quality and safety through a shared electronic health record***

A summary of a consumer's current health status (including relevant past health issues) will assist decision-making by providers who have not previously encountered that consumer and allow regular care providers to remain up-to-date with services provided by other members of the care team.

Secure access to important health information by a consumer will be provided via the Internet and by health service providers using accredited software (where authorised by that consumer):

- eg current medicines, major diagnoses, recent pathology results.

### **2.5.3 *Integrated models of care supported through a shared electronic health plan***

A health plan outlines a consumer's future health care needs.

The health plan will be accessible securely by a consumer via the Internet and by health service providers using accredited software, (where authorised by that consumer):

- eg a summary of planned services for a consumer with diabetes.

### **2.5.4 *Life saving information available in emergencies***

Information required to safely manage a consumer's acute episode will be available.

This information will be stored securely and readily accessible (eg via the Internet and/or on the consumer's smartcard):

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- eg next of kin, allergies, current medicines.

### **2.5.5 *Enhanced primary care communications network***

An enhanced and secure communications network will be provided to eligible primary care providers via the Australian Government's Broadband for Health initiative.

### **2.5.6 *Consumers better able to manage their health care***

Consumers will be able to obtain information to assist in appropriate self-management or to access relevant health services.

## **2.6 What will the HealthConnect Strategy achieve?**

### **2.6.1 *Short to medium-term outcomes***

The short to medium-term outcomes sought from the implementation of HealthConnect are:

- enabling health care providers to have access to a broader range of information through standardised secure electronic communication;
- cutting down on red tape by providing health care providers with products and services that allow them to work more efficiently; and
- greater involvement of consumers in their health care.

The short to medium-term outcome measures will include the percentage increases in participation over time by both health care providers (types and numbers) and consumers.

### **2.6.2 *Long-term outcomes***

The long-term outcomes for the HealthConnect Strategy will be measured through evaluation. The major project outcome is the improved quality and safety of health care for consumers through:

- reductions in the number of medical errors;
- reductions in the number of adverse medicines events;
- reductions in the cost of health care including a decrease in the number of unnecessarily duplicated tests;
- decreases in the incidence of preventable illnesses;
- decreases in the number of hospital re-admissions;
- improved delivery of health care services; and

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- consumer empowerment in the decision-making processes of their health care.

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## 3 Guiding principles to successful delivery of the HealthConnect Strategy

Successful implementation of the HealthConnect Strategy will depend on tangible benefits being recognised by health care providers and consumers. Delivery of benefits will result in the Australian community deriving greater value from their investment in the health system to cope with an increasing burden of chronic disease in our community.

Four levels have been described for the interoperability of health information systems (Walker et al 2005):

- Level 1: Non-electronic data (eg mail, telephone)
- Level 2: Machine-transportable data (eg faxed or scanned documents)
- Level 3: Machine-organisable data (eg e-mail, proprietary file formats)
- Level 4: Machine-interpretable data (eg structured data within standardised messages)

The HealthConnect Strategy aims to achieve 'level 4' interoperability, which has been demonstrated to maximise both the effectiveness and efficiency of health service delivery.

To achieve that outcome, the implementation of the HealthConnect Strategy will be driven by the following principles.

### 3.1 Improved safety and quality in health care

Accurate health information provided at the point of care when it is needed, will have a significant impact on the quality and safety aspects of clinical care by:

- reducing unnecessary and duplicated treatments and testing through improved coordination of care, especially for consumers with complex and chronic conditions;
- improving the use and management of medicines; and
- reducing re-admissions to hospitals resulting from adverse medicines events or lack of information to support community-based care.

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In addition, the use of de-identified HealthConnect data will result in increased quality of health research and planning through the capacity to undertake longitudinal studies and provide evidence to support best practice care delivery.

The International Standards Organisation has defined secondary uses as:

*“any legitimate use of a health care record other than the purpose of supporting the direct delivery of health care services to the subject of care. Examples of secondary uses include applying the record for medico-legal, quality management, clinical research, epidemiology, population health, health administration, financial, educational or health service planning purposes”.*

While secondary use of de-identified data is not seen as a short-term driver of HealthConnect, in the longer term the information held in HealthConnect repositories may prove to be an invaluable resource to improve the quality, effectiveness and efficiency of the Australian health care system.

## 3.2 Stakeholder engagement

Meaningful and ongoing input from all stakeholder groups (including participation in governance processes) is critical to the long-term success of the HealthConnect Strategy. Its successful implementation will rely on good communications with stakeholders at national, local and grassroots levels.

Implementation of the HealthConnect Strategy is primarily a change management process rather than a technology project and will be undertaken collaboratively with health care provider groups and individuals, as well as with consumers. It will take into account the extensive feedback provided by stakeholders at national, local and grass roots levels and the lessons learned from the MediConnect Field Test and HealthConnect trials.

The Australian Government will continue relationships with national provider, consumer and industry groups while State and Territory implementation teams will manage local stakeholder relationships, noting that effective linkages between State and Territory Government and national representatives will be critical to the project's success.

Key tools include:

- a strategy that has been developed to provide a practical, ‘can do’ approach to stakeholder engagement that can be implemented by teams at national, State and Territory and local levels to drive the implementation of HealthConnect;
- key messages based on a clear definition of the HealthConnect Strategy, (eg how it will work, its benefits for consumers and providers and how it will be implemented) that will be clearly and consistently articulated; and

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- the use of a style guide and templates designed for a wide range of communications products and materials for the HealthConnect Strategy that will help to ensure the delivery of consistent messages for the project.

### **3.2.1 Consumers**

Consumers will increasingly experience greater access to information about their health, and an enhanced capacity to participate in decisions about their health care.

- The implementation of the HealthConnect Strategy will respect the privacy of each consumer's personal health information
- Confidentiality of transferred information will be maintained according to security and consent standards developed by NEHTA
- Consumers will be issued with an electronic personal health identifier which will allow the consumer to accurately manage electronic clinical communication between health service providers
- Consumers will also be able to authorise the creation of, and subsequent access by providers to, their electronic health record and their electronic health plan (including the ability to remove authorisation for providers consumers no longer wish to allow access to their health record)
- Consumers may consent to the storage of emergency information in their electronic health record. Emergency information may include allergy and adverse reactions to medicines, and/or next of kin contact details

### **3.2.2 Providers**

Providers will experience a progressively more efficient health system.

- Providers will have access to more complete, accurate and up-to-date information more readily to hand to assist in evidence-based decision-making
- Providers will be able to operate more effectively within multidisciplinary care teams by sharing information about health care services

### **3.2.3 Recruitment**

- The Australian Government will be responsible for developing high level messages and protocols for promotion of the HealthConnect Strategy and recruitment of participants
- State and Territory-based teams will run recruitment campaigns utilising nationally developed messages but tailoring the campaigns to suit local requirements
- Campaigns will encourage consumers to consent to the development of an electronic health record, and encourage providers to participate in appropriately sharing that information

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### 3.2.4

#### ***Industry***

The IM&ICT industry will be critical to the successful implementation of the *HealthConnect* Strategy.

- Implementation will be sustained in a market-driven environment that promotes industry development
- Standards-compliant software will be required by all participating health service providers and administrative agencies
- Effective, efficient and secure communication channels (such as secure broadband services) will be required to ensure that sensitive personal health information remains confidential
- Appropriate hardware and operating systems will be required to store information and support clinical and administrative software

### 3.3

#### **Partnership between the Australian and State and Territory Governments**

The Australian, State and Territory Governments will work in partnership to implement the *HealthConnect* Strategy nationally.

- Accountability for implementation of the *HealthConnect* Strategy will be managed by a partnership described in bilateral agreements between each of the States and Territories and the Australian Government
- Agreements will be developed to build the pathway for existing and planned electronic health record initiatives in States and Territories to achieve compliance with nationally agreed standards developed by NEHTA
- The Australian Government may provide a funding contribution to assist States and Territories to implement the *HealthConnect* Strategy in accordance with bilaterally agreed timeframes
- The Australian Government will manage the procurement and tendering for national components of the project, including contracting NEHTA to develop e-health architectures and arranging supply of enabling infrastructure to support the *HealthConnect* Strategy
- State and Territory Governments will manage the procurement and tendering processes for state-based components
- The Australian Government will arrange core national enabling infrastructure that complies with standards and architectures developed by NEHTA
- Progressively staged regional implementation of the *HealthConnect* Strategy is primarily the responsibility of respective States and Territories, in accordance with priorities determined in each jurisdiction as agreed with the Australian Government

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- Contracts with NEHTA will reflect the alignment of *HealthConnect* implementation with NEHTA's agenda to deliver critical national health IM&ICT priorities
  - Implementation in States and Territories is to be aligned with the overarching national strategy, and undertaken in accordance with the standards and architectures endorsed by NEHTA

### **3.3.1 Governance**

- A governance working group set up by the *HealthConnect* Board considered the governance arrangements for *HealthConnect* in relation to the national groups which report to the Australian Health Ministerial Advisory Committee (AHMAC). Its members included representatives from the New South Wales, Northern Territory and Victorian Governments, as well as the Australian Medical Association, the Pharmacy Guild of Australia and consumers
- A cross-jurisdictional *HealthConnect* National Implementation Steering Committee reports to the National Health Information Group (NHIG) and takes responsibility for the successful implementation of the *HealthConnect* Strategy across Australia
- The *HealthConnect* National Implementation Steering Committee manages the policies and business issues of *HealthConnect* and has accountability for achieving agreed outcomes using available resources
- An Implementation Advisory Group will be set up to advise the *HealthConnect* National Implementation Steering Committee on stakeholder issues. Working parties may be formed to focus on specific issues. Roles and membership of the Implementation Advisory Group and its working parties will be determined in the wider context of other health information advisory committees such as the Australian Health Information Council (AHIC)
- The governance arrangements and project management will be consistent with the *HealthConnect* Project Management Guidelines endorsed by the *HealthConnect* Board in September 2004, and the governance arrangements for NEHTA
- The governance arrangements will be mirrored in the States and Territories to include an Implementation Steering Committee and an Implementation Advisory Group, together with working parties as required
- There will be strong linkages between the State and Territory committees, advisory groups and working parties, and the national governance arrangements



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### **3.3.2**      ***Incremental implementation in accordance with State/Territory priorities and capacity***

Implementation will commence in regions in which State and Territory Governments have invested in building the capacity of public hospitals and/or State or Territory funded community services to send and receive standardised clinical messages to other health care providers such as general practitioners and pharmacies.

- Implementation activities commenced in Tasmania, South Australia and the Northern Territory during 2004. Implementation teams have been established and governance arrangements are in place
- Following the commencement of implementation in one region, implementation will progressively roll out to other regions on a staged basis, in accordance with timetables agreed between the Australian Government and each State or Territory
- As implementation progresses, other health care providers such as specialists, allied health professionals and private hospitals will be able to participate in *HealthConnect* as their software systems are accredited
- Initial *HealthConnect* services are anticipated to be available progressively throughout 2005

### **3.3.3**      ***Privacy framework***

Given the sensitive nature of personal health information, privacy protection is of fundamental importance to *HealthConnect*.

- A working group will be formed to develop privacy and security rules and protocols specific to *HealthConnect*
- Health care providers participating in *HealthConnect* will be subject to strict privacy protocols as well as contractual obligations to prevent inappropriate disclosure of *HealthConnect* information
- Existing Commonwealth, State and Territory privacy legislation will also underpin implementation of the *HealthConnect* Strategy

## **3.4**      **National consistency and interoperability**

There will be a pragmatic approach to moving towards nationally consistent *HealthConnect* services over time, with the exchange of information between disparate information systems being based on the use of standards to achieve interoperability.

- NEHTA will take the lead in the provision of standards and architectures
- The medium-term goal for the *HealthConnect* Strategy is to only send and receive clinical information that complies with the NEHTA standards

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- The Australian Government's Broadband for Health initiative will supply business grade broadband for a range of health care providers participating in *HealthConnect*, to ensure that information is managed effectively and efficiently, while complying with security requirements

### **3.4.1 Standards**

Interoperability between disparate information systems will be achieved through the use of standards.

- NEHTA will assume primary responsibility for high level *HealthConnect* architectures and standards
- Some standards have already been agreed or are under development through Standards Australia
- Standards will include terminologies and coding sets
- A strategy will be developed in consultation with stakeholders to agree standards and the development of a system to accredit software compliance with agreed standards

## **3.5 Continuous improvement of *HealthConnect* products and services**

- The number and types of clinical information transfers between health providers (eg between hospitals and general practitioners) by secure electronic means will increase over time
- The information to be provided may initially include hospital discharge summary reports, medication records, prescriptions, electronic referrals, and imaging and pathology requests and results
- The information to be transferred between health providers should be generated by software as a product of usual clinical or administrative activities, and develop according to demand from clinicians and consumers
- The health care information of an individual consumer may be consolidated into an electronic health record and/or health plan, for viewing by a range of health care providers, with the consent of the consumer
- The creation of electronic health records and health plans will be as a product of point-of-care and point-to-point information flows
- The electronic health record and/or health plan will also be accessed by the consumer
- Viewing of electronic health records and/or health plans will initially be available through a web-based portal. However, in the longer term, software vendors will be expected to integrate information retrieved from

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the HealthConnect repository into their clinical information systems so that it is available electronically for decision support purposes

### **3.5.1      *Enhanced health care provider clinical information systems***

The HealthConnect Strategy will strive to meet the health information needs of individual consumers, and fit into the work practices of providers, in order to achieve the desired level of uptake.

- Electronic health records will be automatically generated by extraction of information in standardised summary format from information created electronically for ongoing clinical management purposes, resulting in reduced data entry workloads as systems are developed to automate normal clinical and business processes
- Software products will be developed in response to health care provider demand for HealthConnect compliant software
- Software products must comply with NEHTA-endorsed standards over time to participate in HealthConnect

## **3.6      Investment**

- The Australian Government has endorsed funding for the HealthConnect and MediConnect projects to be integrated and for related funds to be made available to support an integrated work program in States and Territories
- States and Territories will contribute funding for the redevelopment of public hospital and community sector information systems to interact with HealthConnect
- A detailed budget is to be developed, but additional funding is likely to be required for a full national implementation

### **3.6.1      *Leveraged solutions***

Where possible, HealthConnect will build on existing investments in infrastructure and standards, for example:

- entry of information into electronic health records and health plans (including emergency information) will be automated as part of existing clinical management activities
- provider participation will be stimulated by supply-side (eg the availability of electronic discharge summaries from public hospitals) and demand-side initiatives (eg early demand by private sector providers for the adoption of standards-compliant software developed by industry)
- maximised use of significant work already undertaken on HealthConnect components

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### 3.6.2 *Incentives for uptake*

- The Australian Government will provide support for uptake of e-health activities by Medicare-funded health care providers through financial incentives. This includes support for broadband internet uptake by clinicians
- The Australian Government will explore means of stimulating a competitive market environment (eg through demand-side incentives for participation by Medicare-funded providers) within which the IM&ICT industry will supply software, hardware and communications infrastructure
- The Australian Government will develop strategies to provide incentives for the participation of Medicare-funded providers in *HealthConnect*
- The Australian Government does not intend to provide direct incentives to software developers in the implementation phase of the *HealthConnect* Strategy

## 3.7 **Evaluation**

- The lessons learned from the research and development phases of *HealthConnect* have informed development of the *HealthConnect* Implementation Strategy
- Throughout the next stage of implementation of the *HealthConnect* Strategy, a robust evaluation strategy, building on the benefits realisation approach to implementation, will measure the success of the project as an enabler of health care reform in Australia
- A national evaluation framework and plan are key components of the implementation evaluation activities. This framework needs to recognise the multiplicity of factors contributing to changes in health outcomes by logically setting out the process, impact and outcomes that can be attributed to the *HealthConnect* Strategy, while allowing the capture of unintended impacts
- Each State and Territory should also develop a local evaluation framework and plan, closely linked to the national evaluation framework and plan, to capture regional innovations and to support a robust evaluation of the *HealthConnect* Strategy
- As part of the framework, a set of performance indicators will be developed to monitor how efficiently and effectively *HealthConnect* is meeting its objectives and delivering benefits
- Baseline measures of the performance indicators will be considered
- While most of the quantitative measures may be collected retrospectively, it is critical to address gaps in data sources and to collect qualitative

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information, such as the attitudes of health care providers and consumers towards e-health programs and privacy, prior to implementation

- Consumer attitudes at a national level will be assessed as part of the National Consumer Perspectives Survey
- Local attitudes in implementation areas can be assessed by targeted market research
- HealthConnect will not be a static system. Improvements identified during implementation and other electronic health record trials and projects will also be integrated as the national system matures. It is important that the national evaluation strategy continues to evolve and is revised as the HealthConnect program matures